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DOUBLE AMEBIC AND *KLEBSIELLA PNEUMONIAE* LIVER ABSCESSES IN A DIABETIC PATIENT WITH *KLEBSIELLA* MENINGITIS: CASE REPORT

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Purpose: Amebic liver abscess is most common in tropical areas. *Klebsiella pneumoniae* (KP) is a well-known pathogen of diabetic patients and can frequently cause primary liver abscess and distant metastasis, resulting in meningitis. We report a diabetic patient of KP meningitis associated with double liver abscesses caused by KP and ameba.
Case report: A 55 year-old diabetic man was admitted due to consciousness disturbance for 1 day. Intermittent fever, chills, headache, dizziness and right leg pain were also noted for 1 week. There was no rhinorrhea, cough, abdominal pain, vomiting or diarrhea. He was found general weakness and progressive consciousness disturbance since the morning. The patient became unarousable and poor sensation over left limb was noted. There was no seizure or incontinence. Upon physical examination, GCS was E2V1M4, and nuchal rigidity and Kussmaul's respiration were found. Laboratory data showed hyperglycemia, ketonemia (2+) and metabolic acidosis. C-reactive protein (CRP) was 243.7 mg/L. Brain CT showed no intracranial hemorrhage. Lumbar puncture found an opening pressure of 27cmH2O and yellowish cloudy CSF, which analysis showed pleocytosis with a WBC of 12,672/μl and elevated protein level (325 mg/dL). Fluid resuscitation and antibiotic therapy with ceftriaxone were given. The blood and CSF cultures yielded KP. The CT of the abdomen for survey identified two separated liver abscesses (4.7 and 2.5 cm in size, respectively). Then pig-tail draining was inserted into a large abscess and KP was isolated from the purulent pus. Follow-up abdomen CT showed mild residual lesion (2.4 cm in size), yet another abscess showed progressive enlargement (4.6 cm in size). Ameba antibody was positive (1:32 titer). Ceftriaxone was given for 2 weeks. The conscious disturbance and fever relieved gradually and CRP decreased to 92.1 mg/L. As fever subsided and consciousness became clear, he was discharged after a total of 16 days for hospitalization.
Conclusions: We report a rare double liver abscesses caused KP and probably ameba, respectively. Amebiasis should still be considered in areas with high prevalence of primary KP liver abscess, if abscess shows untoward response to antibiotic therapy.

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THE COMMERCIAL DENGUE NS1 AG STRIP AS A MARKER OF DENGUE SEVERITY

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Purpose: There were in vitro studies emphasizing the role of Dengue non-structural protein 1 (NS1) on the pathogenesis of dengue hemorrhagic fever(DHF). The relationship between the sensitivities of commercial NS1 antigen detection kit and dengue severity is controversial. We aim to evaluate the positivity of Dengue NS1 Ag STRIP (BioRad, Hercules, CA) on the severity of dengue fever.
Methods: Adult patients with laboratory-confirmed dengue in a tertiary hospital in Taiwan were enrolled during July 2009 to January 2012. The day of illness onset was defined as day post illness onset 1 (DPO1). The patients with Dengue NS1 Ag STRIP (NS1) tested and presenting during DPO 1 to DPO 8 were analyzed. The severity of dengue was compared between NS1-negative and -positive groups. DPO 1-3 was defined as early presentation and DPO4-8 was defined as late presentation.
Results: During the study period, total 387 patients were enrolled for analysis. The overall sensitivity of Dengue NS1 Ag STRIP was 67.44%. 65.89% of patients were in late presentation. The patient characteristics were not different between early presentation and late presentation except chronic kidney disease. Patients with Dengue NS1 Ag STRIP tested negative have higher rate of plasma leakage, any bleeding, marked thrombocytopenia (<50,000 cells/μL) and elevated aminotransferase than positive result (P=0.0017, 0.024, 0.0017, and 0.0015, respectively). These differences among patients in late presentation were more significant than in early presentation (early: late, P=0.7573: 0.0001, 0.9904: 0.0027, 0.9458: 0.0002, and 0.1582: 0.0122 respectively). We also found more patients with negative Dengue NS1 Ag STRIP results having DHF/DSS(dengue shock syndrome) than positive results among the group with late presentation.
Conclusion: In our study, patients with negative result of Dengue NS1 Ag STRIP tend to be severe. Thus this NS1 rapid test needs to be used with caution, especially among the patients in late presentation.

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THE USE OF STRUCTURAL CHARACTERISTICS OF GENETICS TO EARLY DIAGNOSIS OF TUBERCULOSIS

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Purpose: Because of the slow growth of Mycobacterium tuberculosis, it usually takes more than one to three months for traditional culture and traditional identification. It is a definite distress for physicians, patients, community prevention and public health management as a whole. In order for doctors to be able to diagnose tuberculosis Mycobacterium, or Nontuberculous Mycobacteria to further implement appropriate disposal and treatment, the use of Polymerase chain reaction(PCR), a molecular biology technique used to amplify a specific DNA fragment is applied.
Methods: PCR is performed in vitro, and has brought in great benefits for the diagnosis of tuberculosis. The test focused on Mycobacterium tuberculosis insertion sequence IS6110 as target site for DNA replication (Sensitivity = 85% and Specificity = 97%)
Results: From January 2014 to September 2014, total 196 Mycobacterium acid staining test positive specimens were taken for the TB-PCR test (polymerase chain chain reaction)test. TB-PCR test positive stood for 72 (37%) while TB-PCR detection of negative was 124 (63%). For TB-PCR test positive, the trace culture result for Mycobacterium tuberculosis was 88% (63/72), non-tuberculous mycobacteria 3% (2/72), negative 10% (7/72); TB-PCR tested negative ,trace culture result for Mycobacterium tuberculosis was 13% (16/124), non-tuberculous mycobacteria 46% (57/124), negative 41% (51/124).
Conclusions: This molecular diagnostic technology is especially suitable for the rapid diagnosis of sputum smear that was positive for acid-fast staining patients, but due to the detection target as DNA, it is unable to distinguish between whether the case is in the latency or active tuberculosis stage. Therefore, it is recommended that the application be used in cases before the early detection of anti-TB drugs, but not for follow-up treatment. For those acid staining positive test was negative by PCR, chest X-ray and careful observation of clinical symptoms should be taken into consideration to determine the possibility of tuberculosis.

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CLINICAL MANIFESTATIONS, COURSES, AND OUTCOMES IN PATIENTS WITH ANTI-INTERFERON-γ AUTOANTIBODIES AND DISSEMINATED NON-TUBERCULOUS MYCOBACTERIAL INFECTIONS

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Purpose: Anti-interferon-γ (anti-IFN-γ) autoantibodies-associated immunodeficiency is an emerging medical issue in Southeast Asia. In the present study, we describe and discuss the clinical features and outcomes of patients with such autoantibodies and disseminated non-tuberculous mycobacterial (dNTM) infections.
Methods: We thoroughly reviewed the medical records of all our patients. The identification of microorganisms and IFN-γ autoantibodies was based on the methods used in our previous study with a few modifications. All data were calculated and analyzed using SPSS software.
Results: In this study, we included 33 adults with anti-IFN-γ autoantibodies and dNTM infections. No sex predominance was found. Most patients (90.9%) were Minnan and the average age was 60.7 years. Fourteen patients had underlying diseases, and eight patients exhibited concurrent co-infections. Slow-growing NTMs were isolated more commonly than rapid-growing NTMs. Lymphadenopathy (81.8%) was the most common clinical